

APR - 9 2008

## 5. 510(k) Summary

This summary of 510(k) safety and effectiveness information is submitted in accordance with 21 CFR 807.92.

### General Information:

- A. Submitted By: Cardiovascular Imaging Technologies  
4320 Wornall Road, Suite 55  
Kansas City, MO 64111  
Tel: 816-531-2842  
Fax: 816-531-0643
- Contact Person: James A. Case
- Date Prepared: March 17, 2008
- B. Device Trade Name: ImagenMD™ with ImagenQ™
- Classification Name: System, Emission Computed Tomography  
21 CFR 892.1200 (KPS)  
System, Image Processing, Radiological  
21 CFR 892.2050 (LLZ)
- C. Predicate Devices: ECAT LSO PET/CT 16  
EMORY Cardiac Toolbox
- D. Device Description:

ImagenMD™ with ImagenQ™ is a Windows software application which allows physicians and healthcare professionals to inspect, quantitatively and automatically perform calculations on myocardial perfusion PET images. The user can perform quality assessments, automatically and manually select myocardial boundaries and alignment, and visualize the results of quantitative perfusion calculations. The use of this system is limited to qualified, licensed healthcare providers (radiologists, nuclear cardiologists or nuclear medicine physicians) trained in the use of nuclear medicine imaging devices.

- E. Indications for Use:

The ImagenMD™ with ImagenQ™ system is software that allows the user to visualize raw PET and/or PET/CT data, assist in evaluating the quality of PET scans and perform quantitative measurements of tracer uptake to aid in the interpretation of myocardial perfusion PET images.

F. Comparison of Technical Characteristics to Predicate Device:

The ImagenMD™ with ImagenQ™ system and its predicates, the ECAT LSO PET/CT 16 and the Emory Cardiac Toolbox™ utilize the same type of data sets for analysis and calculation of data.

H. Summary:

Testing and comparison of technological characteristics and intended uses found that all components of the ImagenMD™ with ImagenQ™ system are equivalent to the predicates.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

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Cardiovascular Imaging Technologies  
% Ms. Melanie Hasek  
Manager, Regulatory Affairs  
PRA International  
9755 Ridge Drive  
LENEXA KS 66219

Re: K080770

Trade/Device Name: ImagenMD™ with ImagenQ™  
Regulation Number: 21 CFR 892.1200  
Regulation Name: Emission computed tomography system  
Regulatory Class: II  
Product Code: LLZ  
Dated: March 17, 2008  
Received: March 25, 2008

Dear Ms. Hasek:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

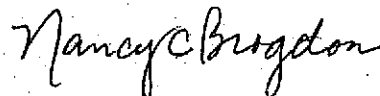
This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Center for Devices and Radiological Health's (CDRH's) Office of Compliance at one of the following numbers, based on the regulation number at the top of this letter.

21 CFR 876.xxxx	(Gastroenterology/Renal/Urology)	240-276-0115
21 CFR 884.xxxx	(Obstetrics/Gynecology)	240-276-0115
21 CFR 892.xxxx	(Radiology)	240-276-0120
Other		240-276-0100

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding postmarket surveillance, please contact CDRH's Office of Surveillance and Biometric's (OSB's) Division of Postmarket Surveillance at 240-276-3474. For questions regarding the reporting of device adverse events (Medical Device Reporting (MDR)), please contact the Division of Surveillance Systems at 240-276-3464. You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Nancy C. Brogdon  
Director, Division of Reproductive,  
Abdominal, and Radiological Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

#### 4. Indications for Use:

Indications for Use

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510(k) Number (if known): K080770

Device Name: ImagenMD™ with ImagenQ™

Indications For Use:

*The ImagenMD™ with ImagenQ™ system is software that allows the user to visualize raw PET and/or PET/CT data, assist in evaluating the quality of PET scans, and perform quantitative measurements of tracer uptake to aid in the interpretation of myocardial perfusion PET images.*

Prescription Use ☒  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use ☐  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF  
NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

  
(Division Sign-Off)

Division of Reproductive, Abdominal and  
Radiological Devices

510(k) Number K080770

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